

# SEQUENCE LISTING

<110> Irvin, Randall T.  
Hodges, Robert S.

<120> PSUEDOMONAS TREATMENT  
COMPOSITION AND METHOD

<130> 8900-0008.30

<140> US 09/329,884

<141> 1999-06-11

<150> US 60/089,155

<151> 1998-06-12

<160> 22

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 387

<212> DNA

<213> Pseudomonas aeruginosa

<220>

<221> CDS

<222> (0)...(0)

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gctgccacgg	caggcatcga	gaaagatacc	gacatcaacg	gcaagtatgt	tgccaaggta	180
acaactgggtg	gcaccgcagc	tgcgtctggg	ggttgcaacta	tcgttgctac	tatgaaagcc	240
tctgatgtgg	ctactcctct	gagggggaaa	actctgactt	tgactctagg	aaatgctgac	300
aagggttctt	acacttgggc	ctgtacttcc	aacgcagata	acaagtacct	gccaaaaacc	360
tgccagactg	ctaccactac	cactccg				387

<210> 2

<211> 129

<212> PRT

<213> Pseudomonas aeruginosa

<400> 2

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			20					25					30		
Asp	Gly	Ser	Cys	Pro	Ala	Asn	Thr	Ala	Ala	Thr	Ala	Gly	Ile	Glu	Lys
		35				40						45			
Asp	Thr	Asp	Ile	Asn	Gly	Lys	Tyr	Val	Ala	Lys	Val	Thr	Thr	Gly	Gly
	50				55					60					
Thr	Ala	Ala	Ala	Ser	Gly	Gly	Cys	Thr	Ile	Val	Ala	Thr	Met	Lys	Ala
65				70					75					80	
Ser	Asp	Val	Ala	Thr	Pro	Leu	Arg	Gly	Lys	Thr	Leu	Thr	Leu	Thr	Leu
			85					90					95		
Gly	Asn	Ala	Asp	Lys	Gly	Ser	Tyr	Thr	Trp	Ala	Cys	Thr	Ser	Asn	Ala
		100					105					110			
Asp	Asn	Lys	Tyr	Leu	Pro	Lys	Thr	Cys	Gln	Thr	Ala	Thr	Thr	Thr	Thr
		115				120						125			
Pro															

<210> 3  
 <211> 369  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<400> 3  
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 60  
 ccggttgaaga ctaccgttga agaggcgctt tctcgtgggt ggagcgtgaa gagcgggtaca  
 120  
 ggtacagagg acgctactaa gaaagagggt cctctggggg tggcggcaga tgctaacaaa  
 180  
 ctgggtacta tcgcactcaa acccgatcct gctgatggta ctgcagatat cactttgact  
 240  
 ttactatgg gcggtgcagg accgaagaat aaagggaata ttattaccct gactcgtact  
 300  
 gcagctgatg gtctctggaa gtgcaccagt gatcaggatg agcagtttat tccgaaaggt  
 360  
 tgctctagg  
 369

<210> 4  
 <211> 123  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 4  
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu  
 1 5 10 15  
 Ala Ser Val Asn Pro Leu Lys Thr Thr Val Glu Glu Ala Leu Ser Arg  
 20 25 30  
 Gly Trp Ser Val Lys Ser Gly Thr Gly Thr Glu Asp Ala Thr Lys Lys  
 35 40 45  
 Glu Val Pro Leu Gly Val Ala Ala Asp Ala Asn Lys Leu Gly Thr Ile  
 50 55 60  
 Ala Leu Lys Pro Asp Pro Ala Asp Gly Thr Ala Asp Ile Thr Leu Thr  
 65 70 75 80  
 Phe Thr Met Gly Gly Ala Gly Pro Lys Asn Lys Gly Lys Ile Ile Thr  
 85 90 95  
 Leu Thr Arg Thr Ala Ala Asp Gly Leu Trp Lys Cys Thr Ser Asp Gln  
 100 105 110  
 Asp Glu Gln Phe Ile Pro Lys Gly Cys Ser Arg  
 115 120

<210> 5  
 <211> 366  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<220>  
 <221> CDS  
 <222> (0)...(0)

<400> 5  
 gcgctcgagg gtaccgaatt cgcgcggttcg gaagggtgctt cggcgctggc gacgatcaac 60  
 ccgctgaaga ccactgttga agagtcgctg tcgctgggaa ttgctggtag caaaattaaa 120  
 attggtacta ctgcttctac tgcgaccgaa acatatgccg gcgtcgagcc ggatgccaac 180  
 aagttgggtg taattgctgt agcaatcgaa gatagtgggt cgggtgatat tacctttacc 240  
 ttccagactg gtacctctag tcccaagaat gctactaaag ttatcactct gaaccgtact 300  
 gcggatgggg tctgggcttg taaatctacc caggatccga tggttactcc gaaaggttct 360

<210> 6  
 <211> 122  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 6  
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu  
 1 5 10 15  
 Ala Thr Ile Asn Pro Leu Lys Thr Thr Val Glu Glu Ser Leu Ser Arg  
 20 25 30  
 Gly Ile Ala Gly Ser Lys Ile Lys Ile Gly Thr Thr Ala Ser Thr Ala  
 35 40 45  
 Thr Glu Thr Tyr Ala Gly Val Glu Pro Asp Ala Asn Lys Leu Gly Val  
 50 55 60  
 Ile Ala Val Ala Ile Glu Asp Ser Gly Ala Gly Asp Ile Thr Phe Thr  
 65 70 75 80  
 Phe Gln Thr Gly Thr Ser Ser Pro Lys Asn Ala Thr Lys Val Ile Thr  
 85 90 95  
 Leu Asn Arg Thr Ala Asp Gly Val Trp Ala Cys Lys Ser Thr Gln Asp  
 100 105 110  
 Pro Met Phe Thr Pro Lys Gly Ser Asp Asn  
 115 120

<210> 7  
 <211> 381  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<220>  
 <221> CDS  
 <222> (0)...(0)

<400> 7  
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 gcgctgaaga ccgctgcgga gtcggcgatt ctggaaggga aggagattgt ttccagcgcg 120  
 actcctaaag ataccagta tgacattggc ttcaccgagt ctactttgct agatgggtct 180  
 ggtaagagtc agatccagggt aacggacaat aaagatggca ccgttgagtt ggtcgctacc 240  
 ttgggtaaat cttctggttc cgccatcaaa ggggctgtaa tcaactgtttc gcgtaaaaaat 300  
 gacggagtct ggaactgcaa aatcaccaaa actcctacag cttggaagcc caactacgct 360  
 ccggctaatt gcccgattc c 381

<210> 8  
 <211> 127  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 8  
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Thr Gln Val Thr Arg Ala Val  
 1 5 10 15  
 Ser Glu Val Ser Ala Leu Lys Thr Ala Ala Glu Ser Ala Ile Leu Glu  
 20 25 30  
 Gly Lys Glu Ile Val Ser Ser Ala Thr Pro Lys Asp Thr Gln Tyr Asp  
 35 40 45  
 Ile Gly Phe Thr Glu Ser Thr Leu Leu Asp Gly Ser Gly Lys Ser Gln  
 50 55 60  
 Ile Gln Val Thr Asp Asn Lys Asp Gly Thr Val Glu Leu Val Ala Thr  
 65 70 75 80  
 Leu Gly Lys Ser Ser Gly Ser Ala Ile Lys Gly Ala Val Ile Thr Val  
 85 90 95  
 Ser Arg Lys Asn Asp Gly Val Trp Asn Cys Lys Ile Thr Lys Thr Pro

100 105 110  
 Thr Ala Trp Lys Pro Asn Tyr Ala Pro Ala Asn Cys Pro Asn Ser  
 115 120 125

<210> 9  
 <211> 381  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<220>  
 <221> CDS  
 <222> (0)...(0)

<400> 9  
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 tccttgaaga ctgcagttga ggccctgcctc caggatgggc gtactgctgt ggggtactgct 120  
 gctggtcaat gcgatccggg tgcgacgggt tccagtttgt tgactgggtgc ttctcagact 180  
 tctcaaacc tgccaaccaa taccgggtgtt ccgcagggttc tggatcctct gactactcaa 240  
 accactatca ttgcgacttt tggtaacggc gcacccgcag ctatttcttg ccagactctg 300  
 acctggactc gtgatgttaa tgggtggctgg agctgtgcta ctaccgtaga tgctaaattc 360  
 cgctctaattg gctgtactga c 381

<210> 10  
 <211> 127  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 10  
 Ala Leu Glu Gly Thr Glu Phe Ser Arg Ser Gln Val Ser Arg Val Met  
 1 5 10 15  
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 20 25 30  
 Gly Arg Thr Ala Val Gly Thr Ala Ala Gly Gln Cys Asp Pro Gly Ala  
 35 40 45  
 Thr Gly Ser Ser Leu Leu Thr Gly Ala Ser Gln Thr Ser Gln Thr Leu  
 50 55 60  
 Pro Thr Asn Thr Gly Val Pro Gln Val Leu Asp Pro Leu Thr Thr Gln  
 65 70 75 80  
 Thr Thr Ile Ile Ala Thr Phe Gly Asn Gly Ala Ser Ala Ala Ile Ser  
 85 90 95  
 Gly Gln Thr Leu Thr Trp Thr Arg Asp Val Asn Gly Gly Trp Ser Cys  
 100 105 110  
 Ala Thr Thr Val Asp Ala Lys Phe Arg Pro Asn Gly Cys Thr Asp  
 115 120 125

<210> 11  
 <211> 507  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<220>  
 <221> CDS  
 <222> (0)...(0)

<400> 11  
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 atcgaagccc taaaggccga gatagaagca cttaaggcag agatcgaggc gctaaaagcg 120  
 gaaatagagg ctctgaaggc aggcgggtgga ggagaattcg ctcggttcgga aggcgcactc 180  
 gctcttgctt cgggtcaatcc gttgaagact accgttgaag aggcgctttc tctggtgttg 240  
 agcgtgaaga gcggtacagg tacagaggac gctactaaga aagaggttcc tctgggggtg 300  
 gcggcagatg ctaacaaact ggggtactatc gcactcaaac ccgatcctgc tgatgggtact 360  
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430  
507

<400> 12

$\langle 220 \rangle$   
 $\langle 221 \rangle$  CDS  
 $\langle 222 \rangle$  (0) ... (0)

<400> 13

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<210> 14
<211> 169
<212> PRT
<213> Pseudomonas aeruginosa
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<400> 14

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Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu  
20 25 30



130 135 140  
 Ala Asp Lys Gly Ser Tyr Thr Trp Ala Cys Thr Ser Asn Ala Asp Asn  
 145 150 155 160  
 Lys Tyr Leu Pro Lys Thr Cys Gln Thr Ala Thr Thr Thr Thr Pro  
 165 170 175

<210> 17  
 <211> 525  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<220>  
 <221> CDS  
 <222> (0)...(0)

<400> 17  
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 gaagtatcag cacttgagaa gggcggtgga ggagaattcg cacgcgctca gcttagcgaa 180  
 cgcgatgacc tggccagtgg tctcaagacg aaagtgagcg atatcttctc tcaggatggg 240  
 tctgcccggg ctaatactgc tgccacggca ggcacgaga aagataccga catcaacggc 300  
 aagtatgttg ccaagtaac aactggtggc accgcagctg cgtctggtgg ttgcaactatc 360  
 gttgctacta tgaaagcctc tgatgtggct actcctctga gggggaaaac tctgactttg 420  
 actctaggaa atgctgacaa gggttcttac acttgggcct gtacttccaa cgcagataac 480  
 aagtacctgc caaaaacctg ccagactgct accactacca ctccg 525

<210> 18  
 <211> 175  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 18  
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 Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu  
 20 25 30  
 Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Gly  
 35 40 45  
 Gly Gly Gly Glu Phe Ala Arg Ala Gln Leu Ser Glu Arg Met Thr Leu  
 50 55 60  
 Ala Ser Gly Leu Lys Thr Lys Val Ser Asp Ile Phe Ser Gln Asp Gly  
 65 70 75 80  
 Ser Cys Pro Ala Asn Thr Ala Ala Thr Ala Gly Ile Glu Lys Asp Thr  
 85 90 95  
 Asp Ile Asn Gly Lys Tyr Val Ala Lys Val Thr Thr Gly Gly Thr Ala  
 100 105 110  
 Ala Ala Ser Gly Gly Cys Thr Ile Val Ala Thr Met Lys Ala Ser Asp  
 115 120 125  
 Val Ala Thr Pro Leu Arg Gly Lys Thr Leu Thr Leu Thr Leu Gly Asn  
 130 135 140  
 Ala Asp Lys Gly Ser Tyr Thr Trp Ala Cys Thr Ser Asn Ala Asp Asn  
 145 150 155 160  
 Lys Tyr Leu Pro Lys Thr Cys Gln Thr Ala Thr Thr Thr Thr Pro  
 165 170 175

<210> 19  
 <211> 504  
 <212> DNA  
 <213> Pseudomonas aeruginosa

<220>  
 <221> CDS

SECRET

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gaaatagagg	ctctgaaggc	aggcgggtgga	ggagaattcg	cgcggttcgga	aggtgcttcg	180
gcgctggcga	cgatcaaccc	gctgaagacc	actgttgaag	agtcgctgtc	gcgtggaatt	240
gctggtagca	aaattaaaaa	tggttactact	gcttctactg	cgaccgaaac	atatgccggc	300
gtcgagcccg	atgccacaac	gttggggtgta	attgctgtag	caatcgaaaga	tagtggtgcg	360
ggtgatatta	ctctttacctt	ccagactggt	acctctagtc	ccaagaatgc	tactaaagtt	420
atcactctga	accgtactgc	ggatggggtc	tgggcttgta	aatctaccca	ggatccgatg	480
ttcactccga	aaggtttctga	taac				504

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<210> 21
<211> 504
<212> DNA
<213> Pseudomonas aeruginosa
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<220>  
<221> CDS  
<222> (0) ... (0)
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gaagtatcag	cacttgagaa	gggcggtgga	ggagaattcg	cgcgttcgga	aggtgcttcg		180
gcgctggcga	cgatcaaccc	gctgaagacc	actgttgaag	agtcgctgtc	gcgtggaatt		240
gctggtagca	aaattaaaaat	tggtactact	gcttctactg	cgaccgaaac	atatgccggc		300
gtcgagccgg	atgccaacaa	gttgggtgta	attgctgtag	caatcgaaga	tagtggtgcg		360
ggtgatatta	cctttacctt	ccagactggt	acctctagtc	ccaagaatgc	tactaaagtt		420
atcactctga	accgtacttc	ggatggggtc	tgggcttgta	aatctaccca	ggatccgatg		480
ttcactccga	aaggttctga	taac					504



<210> 22  
 <211> 168  
 <212> PRT  
 <213> Pseudomonas aeruginosa

<400> 22  
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 20 25 30  
 Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu  
 35 40 45  
 Gly Gly Gly Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu Ala Thr  
 50 55 60  
 Ile Asn Pro Leu Lys Thr Thr Val Glu Glu Ser Leu Ser Arg Gly Ile  
 65 70 75 80  
 Ala Gly Ser Lys Ile Lys Ile Gly Thr Thr Ala Ser Thr Ala Thr Glu  
 85 90 95  
 Thr Tyr Ala Gly Val Glu Pro Asp Ala Asn Lys Leu Gly Val Ile Ala  
 100 105 110  
 Val Ala Ile Glu Asp Ser Gly Ala Gly Asp Ile Thr Phe Thr Phe Gln  
 115 120 125  
 Thr Gly Thr Ser Ser Pro Lys Asn Ala Thr Lys Val Ile Thr Leu Asn  
 130 135 140  
 Arg Thr Ala Asp Gly Val Trp Ala Cys Lys Ser Thr Gln Asp Pro Met  
 145 150 155 160  
 Phe Thr Pro Lys Gly Ser Asp Asn  
 165

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